IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application: John C. Huculak *et al.*	Art Unit: 3769
Serial No.: 10/671,150	Examiner: Henry M. Johnson III
Filed: September 25, 2003	Confirmation no.: 7553
Title: LED ILLUMINATOR	
Attorney Docket No.: 2377	
Customer No.: 26356	

APPEAL BRIEF

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This appeal brief is submitted pursuant to the Notice of Appeal filed January 26, 2009 in response to the rejections of the Final Official Action mailed September 26, 2008 ("Final Office Action").

(i) Real party in interest.

The real party in interest is Alcon, Inc.

(ii) Related appeals and interferences

None.

(iii) Status of claims

Claim 1 is pending, all other claims having been canceled without prejudice before the Final Office Action. As of the Final Office Action, Claim 1 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S Patent No. 6,435 to Toth *et al.* (hereinafter, "*Toth*") in view of U.S. Patent No. 6,211,626 to Lys *et al.* (hereinafter, "*Lys*").

(iv) Status of Amendments

No amendments after final rejection have been submitted.

(v) Summary of claimed subject matter

Claim 1 recites:

> A system for illuminating an interior space within an eye, said system comprising:
> a cannula having a distal end and a proximal end;
> a hollow handle constructed and arranged for mounting said cannula;
> said distal end of said cannula being constructed and arranged for insertion into said interior space of said eye;
> said proximal end of said cannula being constructed and arranged for connection to said hollow handle;
> said distal end of said cannula further including a light emitting diode;a receiver disposed within said hollow handle and electrically connected to said light emitting diode via a wire passing through said hollow handle and said cannula; and
> a transmitter disposed external to said handle;
> whereby a brightness of said light emitting diode is controlled via a wireless interface between said transmitter and said receiver.

In the wireless embodiment of Claim 1 as described in the specification of the present Application (hereinafter, "Specification"), a cannula 30 for an LED illuminator 110 includes a distal end ("first end") 32 and a proximal end ("second end") 34. *See* Specification at Fig. 2. The distal end 32 of the cannula 30 is sized and shaped to be inserted into small cavities within the body of an animal, including particularly the posterior eye chamber during eye surgery. *See id.* at 5, lines 9-13. The proximal end 34 of the cannula 30 provides for mounting the cannula 30 within a hollow handle 60. *See id.* at 5, lines 13-14. A light emitting diode 20 is mounted directly at the distal end 32 of the cannula 30. *See id.* at 5, lines 8-10. The LED brightness is controlled via a wireless interface between a transmitter 43 disposed external to the handle 60 at a console 40 and a receiver 47 contained within the handle 60. *See id.* at 5, lines 19-21. The brightness is varied by passing the signals from the receiver 47 through a digital analog converter 51 on their way to the LED 20. *See id.* at 6, lines 1-2.

(vi) Grounds of rejection to be reviewed on appeal.

Whether claim 1 is unpatentable under 35 U.S.C. §103(a) over *Toth* in view of *Lys*.

(vii) Argument

Claim 1 recites a system for illuminating an interior space within an eye including, *inter alia*, a "distal end of said cannula further including a light emitting diode; a receiver disposed within said hollow handle and electrically connected to said light emitting diode via a wire passing through said hollow handle and said cannula; and a transmitter disposed external to said handle; whereby a brightness of said light emitting diode is controlled via a wireless interface between said transmitter and said receiver." Appellants respectfully submit that the *Toth-Lys* combination fails to render Claim 1 obvious for at least three reasons:

(1) the combination fails to teach or suggest all at least the quoted features of Claim 1;

(2) the combination of separate embodiments of *Lys* to produce the missing features of Claim 1 is motivated by impermissible hindsight; and

(3) combining separate embodiments of *Lys* to produce the missing features of Claim 1 would render the embodiments of *Lys* unsatisfactory for their intended purpose.

These reasons for overturning the rejection of Claim 1 are set forth in detail as follows.

A. Law on Obviousness

The law is well-settled that a combination of references must teach or suggest every feature of a claim in order to render the claim obvious. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). *See also In re Wada and Murphy*, Appeal 2007-3733 (BPAI 2008). Moreover, in order to render a claim obvious, the proposed combination must be one that "takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure" so as not to rely on impermissible hindsight. *In re McLaughlin*, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971).

The settled law on obviousness also makes clear that the teaching of the references away from the proposed combination must be considered in determining the differences between the prior art and the claimed invention. *See W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). *See also* MPEP § 2142.02(V). In particular, where the teaching of the prior art reference is such that the proposed modification to produce the claimed invention would render the proposed reference unsatisfactory for its intended purpose, the combination does not render the claimed invention obvious. *See In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (proposed modification cannot render prior art unsuitable for its intended purpose). *See also* MPEP § 2143.01 (V)-(VI).

B. Rebuttal to rejection of claim 1 under 35 USC 103(a) over *Toth* in view of *Lys*

1. The combination fails to teach or suggest all of the features of Claim 1

The Examiner rightly concedes in the Final Office Action that *Toth* includes neither wireless control for a hand-held surgical light source nor an LED source mounted at a distal light delivery end of the device and that *Toth* therefore fails to teach all of the element of independent Claim 1. *See* Final Office Action at 3 ("Toth et al. do not disclose wireless control or an LED source mounted at the distal light delivery end of the device."). But the Examiner asserts that this is shown in *Lys*, in that *Lys* describes both the use of LEDs in an ophthalmic illuminator (citing col. 68, lines 33-35) and the use of remote controls with wireless signals for control of the light devices (citing col. 46, line 63 – col. 47, line 15).

Contrary to the Examiner's assertion, *Lys* does not show the configuration recited in the claims. The only description of connections between an LED and a control mechanism in a surgical handpiece (particularly with respect to the cautery device in Fig. 93B) involve a wired connection. "Imbedded in the wand 2138 in standard fashion is an array of control buttons 2140, an arrangement

familiar to those in the art. At the distal tip of the handheld wand 2138 is a LED system 2144. The power and data signals to the LED system 2144 are carried through a LED cable 2148 affixed to the superior aspect of the handheld wand 2138." *Lys*, col. 65, lines 7-10. *Lys* further teaches that "[i]n an alternate embodiment, the LED cable can be contained within the Bovie wand housing 2136 in proximity to the Bovie power cord 2152" at col. 65, lines 13-15. *See also Lys*, col. 64, lines 16-18 (describing an illuminated surgical retractor depicted in Figure 93A and noting that the power cord is integrated with the handle). There is nothing in this description that teaches or suggests the use of wireless LED controls in the context of any surgical handpiece, much less the recited features of Claim 1. Because *Lys* does not teach or suggest all of the features of Claim 1 that are absent from *Toth*, the *Toth-Lys* combination cannot suffice to render Claim 1 obvious.

2. The combination of separate embodiments of *Lys* to produce the missing features of Claim 1 is motivated by impermissible hindsight

The Examiner also relies on certain embodiments of *Lys* that are not surgical handpieces without articulating any specific reason for doing so. If one were to presume (despite the absence of any articulated reason to do so) that this is intended to propose a combination of separate embodiments of *Lys* to produce the missing features of Claim 1 noted above, the Examiner would then appear to be suggesting that the surgical handpiece embodiments of *Lys* should be further modified by the inclusion of a "signal-generating device" used to wirelessly control LEDs in various embodiments of *Lys* that are not surgical handpieces so as to create a configuration that is otherwise entirely absent from *Lys*. *See Lys* at col. 46, line 63 – col. 47, line 15. If that is in fact the modification that the Examiner is suggesting, the Examiner has failed to provide any motivation based on the knowledge of one skilled in the art at the time the claimed invention was made to make the modification. The only rationale explicitly provided for such a modification is that "the enhancements [of the proposed combination] represent technological advancements that transcend

specific devices *and are pervasive in today's society*," Final Office Action at 3-4 (emphasis added). That rationale is clearly based on impermissible hindsight beyond the scope of the knowledge of one skilled in the art at the time the claimed invention was made. The cited references themselves do not provide such a motivation, nor has the Examiner cited any other evidence of knowledge of one skilled in the art at the time the claimed invention was made that shows such a motivation. This provides another reason for concluding that the cited combination of references does not render Claim 1 obvious.

3. Further modification to produce Claim 1 by combining embodiments of *Lys* would render prior art unsuitable for its intended purpose

Lys not only fails to provide any motivation to combine embodiments to produce the feature of Claim 1 but also teaches away from the modification. With respect to the surgical handpiece embodiment of Figure 93B, *Lys* teaches that "[t]he LED cable 2148 joins with the Bovie power cord 2152 at the proximal end of the instrument to form *a single united device cable* 2150" or in the alternative that "the LED cable can be contained within the Bovie wand housing 2136 *in proximity to* the Bovie power cord 2152." *Lys*, col. 65, lines 10-15 (emphasis added). *See also Lys* at col. 67, lines 5-7 (noting in the context of a surgical illumination headpiece that an important advantage of the use of LEDs in surgical illumination is that the power cords are "non-bulky"). It is contrary to the stated purpose of using LED with power cables allowing a close arrangement of components within the handle, as expressly taught by *Lys*, to add an additional component disposed within the handle, and more specifically, to add a receiver disposed within the handle as recited in Claim 1. Thus, the Examiner's proposed modification to produce Claim 1 would render the very feature that is being combined with *Toth* unsuitable for its intended purpose, providing yet another reason for concluding that the modification is not obvious.

C. Conclusion

In summary, there are at least three reasons that the *Toth-Lys*

combination fails to render Claim 1 obvious. First, neither *Toth* nor *Lys* teaches wireless control for LEDs at the distal end of a surgical illuminator, so the combination fails to teach all of the features of Claim 1. Second, there is no evidence of any motivation for one skilled in the art at the time the claimed invention was made to modify the surgical handpieces of *Lys* to include the wireless LED control mechanism disclosed in *Lys* with respect to other non-surgical devices, and this at least would be required to produce all of the features of Claim 1. Third, *Lys* teaches that an intended purpose for using LEDs in surgical handpieces is to allow a close arrangement of components in the housing, and modifying the surgical handpieces of *Lys* to include a receiver within the housing, as recited in Claim 1, would require additional space within the housing, thus rendering the feature unsatisfactory for its intended purpose. For at least these reasons, the stated basis for rejecting Claim 1 is insufficient, and the rejection of Claim 1 should be reversed.

Respectfully submitted,

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(viii) Claims appendix

1. (Rejected) A system for illuminating an interior space within an eye, said system comprising:

a cannula having a distal end and a proximal end;

a hollow handle constructed and arranged for mounting said cannula;

said distal end of said cannula being constructed and arranged for insertion into said interior space of said eye;

said proximal end of said cannula being constructed and arranged for connection to said hollow handle;

said distal end of said cannula further including a light emitting diode;a receiver disposed within said hollow handle and electrically connected to said light emitting diode via a wire passing through said hollow handle and said cannula; and

a transmitter disposed external to said handle;

whereby a brightness of said light emitting diode is controlled via a wireless interface between said transmitter and said receiver..

2. – 4. (Canceled).

(ix) Evidence appendix

None

(x) Related proceedings appendix

None